

REMARKS

Claims 2-15 are pending. Claim 2 is amended and new claims 14 and 15 are added.

A marked-up version of the changes made to the claim by the current amendment is attached hereto as **"Version with markings to show changes made."**

Claim 2 has been amended to clarify the invention as having a pixel which consists of a photodiode, a first MOS transistor, a second MOS transistor and a third MOS transistor, such as shown in Fig. 9A.

New claim 14 is similar to canceled claim 1, but clarifies that a silicon oxide film (27) is formed on a surface of the impurity region (45) of the photodiode and the drain region (46) of the first MOS transistor, such as shown in Fig. 9A.

New claim 15 clarifies that a concentration of the impurity region (45) of the photodiode differs from that of the drained region (46) of the first MOS transistor.


Prompt and favorable action on the merits is earnestly solicited.

09/753,616

In the event that any fees are due in connection with this paper, please charge our Deposit
Account No. 01-2340.

Respectfully submitted,

ARMSTRONG, WESTERMAN & HATTORI, LLP


Stephen G. Adrian
Attorney for Applicants
Reg. No. 32,878

SGA/arf

Atty. Docket No. 001694
Suite 1000, 1725 K Street, N.W.
Washington, D.C. 20006
(202) 659-2930



23850

PATENT TRADEMARK OFFICE

Enclosures: Version with markings to show changes made

VERSION WITH MARKINGS TO SHOW CHANGES MADE (09/753,616)

IN THE CLAIMS:

Claim 2 has been amended as follows:

2. (Twice Amended) A CMOS image sensor comprising a pixel consisting of:

a photodiode having an impurity region formed in semiconductor substrate;

a first MOS transistor formed on said semiconductor substrate, the first MOS transistor having an impurity region as a drain connected to said impurity region of said photodiode;

a second MOS transistor formed on said semiconductor substrate, the second MOS transistor having an impurity region as a source connected to a source of said first MOS transistor; and

a third MOS transistor formed on said semiconductor substrate, the third MOS transistor having an impurity region as a source connected to a drain of said second MOS transistor, [and]

wherein an insulating film formed on the first, second and third MOS transistors, the insulating film having contact holes reaching the sources and drains of the first, second and third MOS transistors,

[wherein] a silicide film is not formed on a surface of the drain of the first MOS transistor, but the silicide film is formed on each surface of the sources and drains of the first, second and third MOS transistors except for the drain of the first MOS transistor.